

5/20

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## RAW SEQUENCE LISTING

DATE: 05/23/2002

PATENT APPLICATION: US/10/079,754A

TIME: 18:08:07

Input Set : A:\41702seqlist1068.txt

Output Set: N:\CRF3\05232002\J079754A.raw

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4 <110> APPLICANT: Glenn, Matthew
5      Grigor, Murray R.
6      Molenaar, Adrian J.
7      Davis, Stephen R.
9 <120> TITLE OF INVENTION: Compositions Isolated from Bovine
10     Mammary Gland and Methods for Their Use
13 <130> FILE REFERENCE: 11000.1068
C--> 15 <140> CURRENT APPLICATION NUMBER: US/10/079,754A
C--> 15 <141> CURRENT FILING DATE: 2002-02-19
15 <150> PRIOR APPLICATION NUMBER: US 09/699,146
16 <151> PRIOR FILING DATE: 2000-10-27
18 <150> PRIOR APPLICATION NUMBER: US 60,162,701
19 <151> PRIOR FILING DATE: 1999-10-29
21 <150> PRIOR APPLICATION NUMBER: US 09/644,190
22 <151> PRIOR FILING DATE: 2000-08-22
24 <150> PRIOR APPLICATION NUMBER: US 60,150,330
25 <151> PRIOR FILING DATE: 1999-08-23
27 <160> NUMBER OF SEQ ID NOS: 15
29 <170> SOFTWARE: FastSEQ for Windows Version 4.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 505
33 <212> TYPE: DNA
34 <213> ORGANISM: Bovine
36 <400> SEQUENCE: 1
37 ttgaagatga catcaggtac cgctgtccag gactccacca aatatgaaga tttttatctt      60
38 tgtcttcatt atggctctca tcttagccat gattagagct gattcatctg aagagaaacg      120
39 tcacaggaaa cggaaaaaac atcatagagg atattttcaa caataccagc catatcaacg      180
40 atatccacta aattatcctc ctgcgtatcc atttccttaa aatgctgctt agtaactaca      240
41 ggacatgatt agagagattt ttcacaatga tttttcctac tctttctggt gtgttgaaaa      300
42 ccatctttcaaatgaataaa acaaagaaaa aaaaatcagt caagtagttg cacaacacat      360
43 acttggaatc aaatatcaat attttaaaac ataataatga tagtctctga actatgtaat      420
44 tggttttctac tttcttttct ctgtcactta ccatgcatgc ttaataaatt gatctatcaa      480
45 gcataaaaaa aaaaaaaaaa aaaaaa                                505
47 <210> SEQ ID NO: 2
48 <211> LENGTH: 585
49 <212> TYPE: DNA
50 <213> ORGANISM: Bovine
52 <400> SEQUENCE: 2
53 atggattcga ttggaccaga aaagtggtaa aatcttgatc aaagaaatcc ttaacaatat      60
54 actaaagaaa gaagcttgct caagggaaaa ttaaaaagcc agcaattgaa gatgacatca      120
55 ggtaccgctg tccaggactc caccaaatat gaagatcttt atctttatct tcattatggc      180
56 tctcatccta gccatgatta gagctgattc atctgaagag aaacgtcaca ggaaacggaa      240
57 aaaacatcat agaggatatt ttcaacaata ccagccatat caacgatatc cactaaatta      300

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58 tctctctgcg tatccatttc cttaaaatgc tgcttagtaa ctacaggaca tgattagaga      360
59 gattttttcac aatgattttt cctactcttt ctgttggtgt gaaaaccatc tttcaaatga      420
60 ataaaaacaaa gaaaaaaaaa tcagtcaagt agttgcacaa cacatacttg gaatcaaata      480
61 tcaatatttt aaaacataat aatgacagtc tctgaactat gtaattgggt tctactttct      540
62 tttctctgtc acttaccatg catgcttaat aaattgatct atcaa                      585
64 <210> SEQ ID NO: 3
65 <211> LENGTH: 869
66 <212> TYPE: DNA
67 <213> ORGANISM: Bovine
69 <400> SEQUENCE: 3
70 gtccaagggg aaattaaaaa gccagcaatt gaagatgaca tcagggtaccg ctgtccagga      60
71 ctccaccacaa tatgaagatc tttatcttta tcttcattat ggctctcatc ctagccatga      120
72 ttagagctga ttcattctgaa gagaaacgtc acaggaaacg gaaaaaacat catgtatgta      180
73 ttctctctgat aatgtgggat agtataagaa ttttttttac tcagaatatt tattctataa      240
74 gagaatacat atttatcttt gaaatatatc tatacaatga ttagcttatg tgtccattga      300
75 attatctttt tatgatacac taggtaaaga ccccaaagac ttgtgtgctg ttactgttta      360
76 catagaaacc tataatgcc aacctgataaa gccagttatt ttctaagaaa agttatttct      420
77 gtttggtaaa taattgcctt cctctgaaga atactgaaat tctaattata ctaagtacaa      480
78 tatacaccta aaggaccata gaggtctgta aagaacatat attatgtggt cagtttccat      540
79 tttctgattt cttttggggag gtaattgtatg ttaattgacc aagttaaaga agagagacaa      600
80 tttcatttat ttaacatttt tcttaatgat atgtatcact ggtgtctcat attattttga      660
81 catgtctaat caggttgata ggtctccaga attcttacta atacagtaag tactgtact      720
82 gctactgcta agttgcttca gtcattgcca actctgtgag accccataga cagcagcgca      780
83 ccaggctccc ctgcccctgg gattctccag gcaaggatac tggagtgggt tgccatttca      840
84 gataaattca aatagcttca aaaaaaaaaa                      869
86 <210> SEQ ID NO: 4
87 <211> LENGTH: 604
88 <212> TYPE: DNA
89 <213> ORGANISM: Bovine
91 <400> SEQUENCE: 4
92 gaagtatttt cagttctata ataagatctc ataactgatg taattacaaa aacaaatgaa      60
93 ggatttcaag gtatttaaac acagcagttt tctagcaaag aacatctcct gaagcatcag      120
94 aatttcatct ttcattgactg gactccacca aatatgaaga tctttatctt tgtcttcatt      180
95 atggctctca tcttagccat gattagagct gattcatctg aagagaaacg tcacaggaaa      240
96 cggaaaaaac atcatagagg atattttcaa caataccagc catatcaacg atatccacta      300
97 aattatcttc ctgcgtatcc atttctttaa aatgctgctt agtaactaca ggacatgatt      360
98 agagagattt ttcacaatga ttttctctac tctttctggt gtgttgaaaa ccatctttca      420
99 aatgaataaa acaaagaaaa aaaaatcagt caagtagttg cacaacacat acttggaaac      480
100 aatatcaat atttttaaac ataataatga tagtctctga actatgtaat tggtttctac      540
101 tttcttttct ctgtcactta ccatgcatgc ttaataaatt gatctatcaa gcataaaaaa      600
102 aaaa                      604
104 <210> SEQ ID NO: 5
105 <211> LENGTH: 96
106 <212> TYPE: DNA
107 <213> ORGANISM: Bovine
109 <400> SEQUENCE: 5
110 tttcaacaat accagccata tgaacgatat ccaactaaatt atcctcctgc gtatccatta      60
111 tcttaaaatg ctgcttacca actacaggac atgata                      96
113 <210> SEQ ID NO: 6

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## RAW SEQUENCE LISTING

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TIME: 18:08:07

Input Set : A:\41702seqlist1068.txt

Output Set: N:\CRF3\05232002\J079754A.raw

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114 <211> LENGTH: 525
115 <212> TYPE: DNA
116 <213> ORGANISM: Bovine
118 <400> SEQUENCE: 6
119 tgaagatgac atcaggtacc gctgtccagg actccaccaa atatgaagat ctttatcttt      60
120 gtcttcatta tggctctcat cctagccatg attagagctg attcatctga agagaaacgt      120
121 cacaggaaac ggaaaaaaca tcatgttgat aggtctccag aattcttact aatacaagag      180
122 gatattttca acaataccag ccataatcaac gatatccact aaattatcct cctgcgtatc      240
123 catttcctta aaatgctgct tagtaactac aggacatgat tagagagatt ttccacaatg      300
124 atttttctta ctctttctgt tgtgttgaaa accatctttc aaatgaataa aacaaagaaa      360
125 aaaaaatcag tcaagtagtt gcacaacaca tacttggaat caaatatcaa tattttaaaa      420
126 cataataatg atagtctctg aactatgtaa ttggtttcta ctttcttttc tctgtcactt      480
127 accatgcatg cttaataaat tgatctatca agcataaaaa aaaaa                    525
129 <210> SEQ ID NO: 7
130 <211> LENGTH: 58
131 <212> TYPE: PRT
132 <213> ORGANISM: Bovine
134 <400> SEQUENCE: 7
135 Met Lys Ile Phe Ile Phe Val Phe Ile Met Ala Leu Ile Leu Ala Met
136 1          5          10          15
137 Ile Arg Ala Asp Ser Ser Glu Glu Lys Arg His Arg Lys Arg Lys Lys
138          20          25          30
139 His His Arg Gly Tyr Phe Gln Gln Tyr Gln Pro Tyr Gln Arg Tyr Pro
140          35          40          45
141 Leu Asn Tyr Pro Pro Ala Tyr Pro Phe Pro
142          50          55
144 <210> SEQ ID NO: 8
145 <211> LENGTH: 58
146 <212> TYPE: PRT
147 <213> ORGANISM: Bovine
149 <400> SEQUENCE: 8
150 Met Lys Ile Phe Ile Phe Ile Phe Ile Met Ala Leu Ile Leu Ala Met
151 1          5          10          15
152 Ile Arg Ala Asp Ser Ser Glu Glu Lys Arg His Arg Lys Arg Lys Lys
153          20          25          30
154 His His Arg Gly Tyr Phe Gln Gln Tyr Gln Pro Tyr Gln Arg Tyr Pro
155          35          40          45
156 Leu Asn Tyr Pro Pro Ala Tyr Pro Phe Pro
157          50          55
159 <210> SEQ ID NO: 9
160 <211> LENGTH: 70
161 <212> TYPE: PRT
162 <213> ORGANISM: Bovine
164 <400> SEQUENCE: 9
165 Met Lys Ile Phe Ile Phe Ile Phe Ile Met Ala Leu Ile Leu Ala Met
166 1          5          10          15
167 Ile Arg Ala Asp Ser Ser Glu Glu Lys Arg His Arg Lys Arg Lys Lys
168          20          25          30
169 His His Val Cys Ile Pro Leu Ile Met Trp Tyr Ser Ile Arg Ile Phe

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```

170          35          40          45
171 Phe Thr Gln Asn Ile Tyr Ser Ile Arg Glu Tyr Ile Phe Ile Phe Glu
172          50          55          60
173 Ile Tyr Leu Tyr Asn Asp
174 65          70
176 <210> SEQ ID NO: 10
177 <211> LENGTH: 58
178 <212> TYPE: PRT
179 <213> ORGANISM: Bovine
181 <400> SEQUENCE: 10
182 Met Lys Ile Phe Ile Phe Val Phe Ile Met Ala Leu Ile Leu Ala Met
183 1          5          10          15
184 Ile Arg Ala Asp Ser Ser Glu Glu Lys Arg His Arg Lys Arg Lys Lys
185          20          25          30
186 His His Arg Gly Tyr Phe Gln Gln Tyr Gln Pro Tyr Gln Arg Tyr Pro
187          35          40          45
188 Leu Asn Tyr Pro Pro Ala Tyr Pro Phe Pro
189          50          55
191 <210> SEQ ID NO: 11
192 <211> LENGTH: 21
193 <212> TYPE: PRT
194 <213> ORGANISM: Bovine
196 <400> SEQUENCE: 11
197 Phe Gln Gln Tyr Gln Pro Tyr Glu Arg Tyr Pro Leu Asn Tyr Pro Pro
198 1          5          10          15
199 Ala Tyr Pro Leu Ser
200          20
202 <210> SEQ ID NO: 12
203 <211> LENGTH: 59
204 <212> TYPE: PRT
205 <213> ORGANISM: Bovine
207 <400> SEQUENCE: 12
208 Met Lys Ile Phe Ile Phe Val Phe Ile Met Ala Leu Ile Leu Ala Met
209 1          5          10          15
210 Ile Arg Ala Asp Ser Ser Glu Glu Lys Arg His Arg Lys Arg Lys Lys
211          20          25          30
212 His His Val Asp Arg Ser Pro Glu Phe Leu Leu Ile Gln Glu Asp Ile
213          35          40          45
214 Phe Asn Asn Thr Ser His Ile Asn Asp Ile His
215          50          55
217 <210> SEQ ID NO: 13
218 <211> LENGTH: 8
219 <212> TYPE: PRT
220 <213> ORGANISM: Artificial Sequence
222 <220> FEATURE:
223 <223> OTHER INFORMATION: Made in a lab from synthetic material
W--> 225 <221> NAME/KEY: VARIANT
226 <222> LOCATION: (1)...(8)
227 <223> OTHER INFORMATION: Xaa = Any Amino Acid

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Input Set : A:\41702seqlist1068.txt

Output Set: N:\CRF3\05232002\J079754A.raw

W--&gt; 229 &lt;400&gt; 13

W--&gt; 230 Xaa Xaa His His Xaa Xaa Tyr Xaa

231 1 5

233 &lt;210&gt; SEQ ID NO: 14

234 &lt;211&gt; LENGTH: 8

235 &lt;212&gt; TYPE: PRT

236 &lt;213&gt; ORGANISM: Artificial Sequence

238 &lt;220&gt; FEATURE:

239 &lt;223&gt; OTHER INFORMATION: Made in a lab from synthetic material

241 &lt;400&gt; SEQUENCE: 14

242 Lys Lys His His Arg Lys Tyr Phe

243 1 5

245 &lt;210&gt; SEQ ID NO: 15

246 &lt;211&gt; LENGTH: 267

247 &lt;212&gt; TYPE: DNA

248 &lt;213&gt; ORGANISM: Bovine

250 &lt;400&gt; SEQUENCE: 15

251 ttgaagatga catcaggtac cgctgtccag gactccacca aatatgaaga tctttatctt 60

252 tgtcttcatt atggctctca tcctagccat gattagagct gattcatctg aagagaaacg 120

253 tcacaggaaa cggaacaaac atcatagagg atattttcaa caataaccag catatcaacg 180

254 atatccacta aattatcctc ctgcgtatcc atttccttaa aatgctgctt agtaactaca 240

255 ggacatgatt agagagattt ttcacaa 267

RAW SEQUENCE LISTING ERROR SUMMARY      DATE: 05/23/2002  
PATENT APPLICATION: US/10/079,754A      TIME: 18:08:08

Input Set : A:\41702seqlist1068.txt  
Output Set: N:\CRF3\05232002\J079754A.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:13; Xaa Pos. 1,2,5,6,8

## VERIFICATION SUMMARY

DATE: 05/23/2002

PATENT APPLICATION: US/10/079,754A

TIME: 18:08:08

Input Set : A:\41702seqlist1068.txt

Output Set: N:\CRF3\05232002\J079754A.raw

L:15 M:270 C: Current Application Number differs, Replaced Current Application No  
L:15 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:225 M:281 W: Numeric Fields not Ordered, <221> Sort in ascending order!  
L:229 M:258 W: Mandatory Feature missing, <220> not found for SEQ ID#:13  
L:230 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:0